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United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW
CUSTOM HOUSE, ROOM 502
SECOND AND CHESTNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

August 18, 1987

ER-87/721

Mr. Nigel Robinson
Northern New Jersey Compliance Section
Environmental Protection Agency
26 Federal Plaza
New York, New York 10278

Dear Mr. Robinson:

In response to your June 4, 1987 request, the Department of the Interior has reviewed the Draft Remedial Investigation Report (RI) for the Asbestos Dump Site in Morris County, New Jersey. Based on our review, we have serious concerns about the adequacy of the RI in describing the nature and extent of contamination at the satellite dump sites.

We have concentrated our efforts on the data and analyses related to the three satellite sites identified in the RI, which are the White Bridge Road site, the New Vernon Road site, and the Great Swamp National Wildlife Refuge site. The first two satellite sites are adjacent to the U.S. Fish and Wildlife Service's Great Swamp National Wildlife Refuge, and the third is located in a designated wilderness area on the refuge. While we are concerned about the type and level of contaminants at the primary dump site at the Millington plant, the direct threats to the Great Swamp National Wildlife Refuge are our primary concern.

In our determination, the draft RI has significant deficiencies. Most notably, the sampling design at the Great Swamp satellite site does not accurately reflect local surface water and groundwater hydrology, and data have not been analyzed for potential impacts to the biota, including food chain impacts, although many of the contaminants identified at the satellite sites, in particular the heavy metals, are persistent and tend to bioaccummulate. In addition, the ecological analysis needs to be broadened to address both qualitative and quantitative data, preferably in comparison to a control area. We also suspect that wastes from the Millington plant were dumped at additional sites on or adjacent to the Great Swamp National Wildlife Refuge, a concern which the Fish and Wildlife Service raised in a May 6, 1986 letter to EPA. It is therefore highly possible that there are additional satellite sites that should be investigated and addressed as part of the remedial processes for the Asbestos Dump Site. We have enclosed additional, more detailed comments on the RI for your consideration.

In light of our concerns about the completeness of the data and evaluation of the satellite sites on and adjacent to the Great Swamp Refuge, we request a meeting between EPA and Interior to discuss the technical adequacy of the RI, and our specific

recommendations. We believe it is important for us to jointly address and resolve these issues at the RI stage, so that we can be prepared to assist you in determining appropriate types and levels of cleanup at the satellite sites. Please contact Mr. Robin Burr at the Fish and Wildlife Service Field Office in Absecon, New Jersey, at (609) 646-9310 to arrange a meeting time and location.

Sincerely,

Anita J. Miller
Regional Environmental Officer

Enclosure

cc: Robin Burr/FWS

ENCLOSURE

Comments on the Draft Remedial Investigation Report for the Asbestos Disposal Sites, Morris County, New Jersey

In general, the draft remedial investigation report of the asbestos disposal sites does not adequately define the extent of contamination from the three satellite sites which are located on or adjacent to the Great Swamp National Wildlife Refuge. Specifically, the surface water and sediment samples surrounding the two areas of the Great Swamp satellite site were not accurately located to reflect the direction of the area's surface water flow. The Great Brook's flow is greatly reduced between the site and Long Hill Road as evident from a review of U.S. Environmental Protection Agency's aerial photography of the site. The major downgradient surface water flow in this area is directed toward Middle Brook, and no surface water or sediment samples were taken on Middle Brook within 2 miles of the Great Swamp satellite site. There is also some question whether or not the upgradient surface water and sediment samples taken at this site were, in fact, upgradient. All surface water and sediment sample locations should be defined and indicated on each detailed site map. The locations on Figure 3-14 are too general and this hinders understanding the effectiveness of the sample locations and results.

The number and location of groundwater sampling wells present on the two areas of the Great Swamp satellite site are not adequate to describe groundwater flow and thus, the extent of contamination. Most of this sampling was limited to the on-site areas and, therefore, it is impossible to determine the extent of off-site groundwater contamination from the Great Swamp site.

The contaminant data were analyzed only with respect to human health parameters and do not accurately reflect the potential adverse effects to the environment. The concentrations of many heavy metals in the ground and surface water at all the satellite sites exceeded the U.S. Environmental Protection Agency's acute water quality criteria for protection of aquatic life in freshwater. Furthermore, the contaminant levels in the soils of all of the satellite sites exceeded New Jersey's soil standards for an acceptable cleanup at industrial sites. Contaminant data should be supplemented with more sampling, especially off-site, and reevaluated to insure that selected remedial actions effectively protect the environment.

It is apparent that considerable effort went into the biota sampling for the draft remedial investigation report, but ecological analysis was extremely limited. Genus names for the higher invertebrates (insects) are lacking, and there is no data on densities of these biota. Diversity alone does not constitute a healthy ecosystem. An ecological analysis should qualitatively and quantitatively assess biota, comparing results against control areas to determine possible abnormalities and their explanation.

The "Endangerment Assessment Section" did not assess impacts, both real and potential, to the environment. There are several pathways which this assessment failed to consider, including local use of "swimming holes," contact through boating which is allowed adjacent to the refuge and wind-borne asbestos created as a result of horseback riding on the White Bridge Road site. The potential exists for refuge visitors to be exposed to wind-borne asbestos which, incidentally, was never monitored for the White Bridge Road site. In at least two places in the assessment (pp. 6-61, 6-120), assumptions

were incorrectly made regarding the hydrologic contribution of subwatersheds in the Great Swamp watershed (such as Black Brook) to the Passaic River which led to inaccurate conclusions regarding the fate and exposure concentrations of contaminants leaving the satellite dump sites. Additionally, Great Brook and Black Brook, were used interchangeably, thus confusing the analysis.

Overall, the draft report is deficient, as demonstrated by its inattention to detail. Several errors were noted on figures regarding the following: misnamed brooks; misnamed topographic reference maps; and, incorrect identification of the Great Swamp satellite site's location on the large site map included in the report. Also, the large site map for the Great Swamp satellite site appeared to be unfinished, and as such, was of limited value in understanding existing site conditions. Table 3-37 contains two significant errors. The first and major error is that the U.S. Environmental Protection Agency's "Ambient Water Quality Criteria" are either for the "ingestion of water and fish" or the "ingestion of fish" only, but not for the "ingestion of water." Second, the U.S. Environmental Protection Agency's "Ambient Water Criteria" for ethylbenzene is 1400 ug/l and not 2400 ug/l as Table 3-37 states.

Lastly, the scope of coverage presented in this draft report is incomplete, since not all of the suspected satellite asbestos dump sites on or adjacent to the Great Swamp refuge were investigated. In light of this and based upon the aforementioned comments, the draft remedial investigation report is incomplete. Therefore, it is unwise to begin selecting the final remediation methods for the satellite sites in the Great Swamp until the full nature and extent of the Great Swamp's contamination is defined and assessed.